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ABSTRACT

This bibliography is a selection of recent documents and journal articles, most of which are in the Educational Resources Information Center (ERIC) database, that address major issues and summarize current research on Web-based instruction in higher education. These resources were selected from materials published between 1999 and 2002, with an emphasis on materials that are published research reports. The document type of each item is noted in its citation as an additional tool for users in evaluating the material's usefulness. The bibliography contains 100 ERIC resources and 10 selected Internet resources grouped in these categories: (1) overview of Web-based learning; (2) Web-based versus traditional instruction; (3) constructing Web-based courses and curricula; (4) teaching and learning on the Web; (5) assessment and evaluation of Web-based instruction; (6) challenges and impact of Web-based instruction; and (7) selected Internet resources on Web-based instruction. The bibliography also explains how to get copies of documents in the ERIC database. (SLD)

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ED 470 543

WEB-BASED INSTRUCTION IN HIGHER EDUCATION: AN ANNOTATED BIBLIOGRAPHY AND RESOURCE GUIDE

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Introduction

As the demand for distance education increases and the idea of virtual universities becomes more commonplace, higher education administrators, faculty, and staff are trying to understand how best to construct and deliver college courses via the World Wide Web.

Faculty and other higher education researchers are documenting experiences with Web-based instruction in a rapidly increasing number of books and journal articles. Many of these publications have been acquired by the Educational Resources Information Center (ERIC) Clearinghouse system for addition to the ERIC database—the largest education database in the world, containing more than one million bibliographic records of journal articles, research reports, curriculum and teaching guides, conference papers, and books.

This bibliography is primarily a selection of recent ERIC documents and journal articles that address major issues and summarize current research on Web-based instruction in higher education. These resources were selected from materials published between 1999 and 2002, with an emphasis on materials that are published research reports. The document type of each item is noted in its citation as an additional tool for users in evaluating the material's usefulness. The eleven document types included in this bibliography are:

Collected works---General
Collected works---Proceedings
Collected works---Serials
Guides--Classroom--Teacher
Guides--Non-classroom
Numerical/Quantitative Data
Reports--Descriptive
Reports--Evaluative
Reports--Research
Speeches/meeting papers
Test/questionnaires

The bibliography also lists selected Internet resources that aid higher education faculty and staff in constructing, delivering, and evaluating Web-based instruction.

Bibliography Format

This bibliography contains 100 ERIC resources and 10 selected Internet resources grouped into the categories below. The ERIC resources in Sections I. through VI. are listed alphabetically by author.

Sections		Pages
I.	**Overview of Web-based Learning** The eight resources listed here address numerous issues associated with Web-based higher education.	5-8
II.	**Web-based versus Traditional Instruction** Twenty-two sources in this section address these questions: Who prefers Web-based instruction to traditional instruction? How does Web-based instruction compare to instruction delivered in traditional classroom settings? Who benefits most from Web-based classes? What is known about the degree to which Web-based instruction is more cost-efficient than traditionally delivered instruction?	9-16
III.	**Constructing Web-based Courses and Curricula** Thirty-two sources in this section address these questions: What are emerging practices in constructing new courses on the Web? What are good elements of a Web-based course? What experience exists about how to effectively convert a traditional course into a Web-based course? Who owns the course materials faculty mount on the Web? What kind of technical support and library support is required for successful Web-based instruction? What should be considered when choosing a software package to help construct Web-based courses?	17-26
IV.	**Teaching and Learning on the Web** Seventeen sources in this section address these questions: Does research identify any teaching methods and approaches that are Successful in delivering Web-based instruction? How does online teaching affect faculty workload?	27-32
V.	**Assessment and Evaluation of Web-based Instruction** Seventeen sources listed in this section address these questions: What methods have been developed for assessing student learning via the Web? What methods have been developed for assessing teacher effectiveness?	33-37
VI.	**Challenges and Impact of Web-based Instruction** Four sources listed in this section address these questions: What challenges do universities face when implementing Web-based instruction? Is Web-based instruction widely accepted? What are the barriers to university acceptance of Web-based instruction?	38-39
VII.	**Selected Internet Resources on Web-based Instruction** These ten resources offer information and guidance on nearly every aspect of Web-based instruction.	40

HOW TO GET COPIES OF ERIC DOCUMENTS AND JOURNAL ARTICLES CITED IN THIS BIBLIOGRAPHY

ERIC Documents

The full text of most of the ERIC documents (those with an "ED" accession number) cited in this bibliography is available through the ERIC Document Reproduction Services (EDRS) in electronic, paper or microfiche format. To obtain copies, you can:

- Find out whether your local library offers access to full-text electronic, paper, and/or microfiche copies of the ERIC documents you need. To locate the library nearest you that offers the full-text ERIC resource collection, search the Directory of ERIC Resource Collections online at http://oeri4.ed.gov/BASISDB/EROD/eric/SF or call ACCESS ERIC at 1-800-LET-ERIC.

- Call EDRS at 1-800-443-3742 or e-mail EDRS at service@edrs.com to order copies. The EDRS Web site (http://www.edrs.com) also allows users to search the ERIC database and order electronic copies of available documents. Electronic images of ERIC documents are provided in Adobe Portable Document Format (PDF). EDRS also offers paper copy delivery, including fax and express mail services.

Occasionally, a book cited in the ERIC database is available only through its commercial publisher. In this case, ordering information is included in the Availability field of the book's citation. In cases in which a document is available at no cost on the Web, the document's Web address is supplied.

ERIC Journal Articles

ERIC records with an "EJ" accession number are annotations of journal articles. The actual articles can be found in library periodical collections, obtained through interlibrary loan, or purchased from the article reprint companies listed below:

Ingenta
44 Brattle Street, Fourth Floor
Cambridge, MA 02138
Toll Free: (800) 296-2221 (help desk)
Phone: (617) 395-4000
Fax: (617) 395-4099
E-mail: ushelp@ingenta.com
Web: http://www.ingenta.com

Infotrieve
Toll Free: (800) 422-4633
E-mail: service@infotrieve.com
Web: http://www4.infotrieve.com

To obtain articles from journals that do not permit reprints and are not available from your library, write directly to the publisher of the journal. You can find addresses of journal publishers in the Source Journal Index Database on the ERIC Processing and Reference Facility Web site at http://www.ericfacility.net/extra/pub/sjisearch.cfm . You can also call the ERIC Clearinghouse on Higher Education at 1-800-773-3742 to request this information.

WEB-BASED INSTRUCTION IN HIGHER EDUCATION:
AN ANNOTATED BIBLIOGRAPHY AND RESOURCE GUIDE

I. OVERVIEW OF WEB-BASED LEARNING*

ERIC Journal Number: EJ606891
Title: **Going Online: Guidelines for Faculty in Higher Education.**
Author(s) de Verneil, Marie; Berge, Zane L.
Source: Educational Technology Review, n13 p13-18,32 Spr-Sum 2000
Publication Date: 2000
ISSN: 1081-8677
Document Type: **Reports--Descriptive**

Discusses the growing importance of the World Wide Web as a delivery method in higher education and offers guidelines to faculty and designers regarding transitioning from face-to-face classroom instruction to Web-based instruction. Highlights include managerial considerations; pedagogical considerations; designing Web-based instruction; social aspects; technical aspects; and home pages.

ERIC Document Number: ED454847
Title: **NAWeb 2000: Web-Based Learning - On Track! International Conference on Web- Based Learning.** (6th, New Brunswick, Canada, October 14-17, 2000).
Author(s) Hall, Richard., Ed.
Pages: 157
Publication Date: 2000
Document Type: **Collected works--Proceedings**

This proceedings of the Sixth International Conference on Web-Based Learning, NAWeb 2000, includes the following papers: "Is a Paradigm Shift Required To Effectively Teach Web-Based Instruction?"; "Issues in Courseware Reuse for a Web-Based Information System"; "The Digital Curriculum Database: Meeting the Needs of Industry and the Challenge of Enhanced Student Learning"; "Online Learning: What Do Teachers Need To Know about Communicating Online?"; "FITness: A Web-Based Program To Improve Fluency in Information Technology at UNB"; "Pedagogical Issues in Web-Based Learning: The Digital Learning Interactive Approach"; "Higher Learning Online: Using Constructivist Principles To Design Effective Asynchronous Discussion"; "A Model of Faculty and Course Development for Distance Education"; "Teaching Assistant Portal-A Web-Based Tool for Enhancing Teaching and Learning of Lecture-Based Modules"; "Facing the Realities of On-line Delivery"; "Web Interfacing: Merging Statistical Processing with Internet-Based Read and Write Procedures"; "Shifting Pedagogical Trends in Online Teaching at the Mount"; "Integrating Courseware Management Systems with a Website Creation Tool"; "Usability and Learning in On-Line Environments: A Case of Interactive Encounters"; and "Teaching Molecular Biology on the Web." Also included are the following posters: "From Exploration to Consolidation: Ten Years of the Web at Southern Cross University"; "Developing an E-Class Model at Athabasca University"; "Development of an On-Line Graduate Program in Human Resource Development"; "Cognitive Load Reduction in an Onscreen Calculus: A Preliminary Experiment with Voiceovers"; "Wired Class: A Web-Based Learning Environment for Teaching Students at a Distance"; "A Hybrid CD-Internet CD-ROM for Pharmaceutical Care Laboratory Instruction"; "Developing Staff Capability for Online Learning and Delivery: An Australian Framework"; and "What Next? Cutting Back after Three Years of Online Delivery."

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* See p.4 for how to get full-text copies of ERIC documents and journal articles cited in this bibliography.

ERIC Journal Number: EJ635570
Title: **Is the Internet a Classroom?**
Author(s) Hopper, Keith B.
Source: TechTrends, v45 n5 p35-43,25 Sep-Oct 2001
Publication Date: 2001
ISSN: 8756-3894
Document Type: **Reports--Descriptive**

Discusses use of the Internet in higher education. Topics include online teaching and the World Wide Web; online distance learning; instructional design; Internet course development; converting traditional courses to online courses; evaluation of online programs; and advantages of Internet support of traditional courses. (Contains 55 references.)

ERIC Document Number: ED461903
Title: **Distance Education: Pros, Cons, and the Future.**
Author: Li, Hongmei
Publication Date: 2002
Pages: 37
Document Type: **Reports—Evaluative/Feasibility; Speeches, Conference Papers; Information Analyses**

This paper reviews recent publications on distance education and explores its promise and potential from the student's perspective, the faculty's perspective and the administrator's perspective. Findings indicate that only the self-motivated and self-disciplined students are most likely to succeed in distance education. Although the majority of the research concludes that there is no significant difference between distance learning and traditional learning, this is still open to debate. Faculty support is mixed. The fundamental reason is the lack of faculty involvement in the dominant administrator-centered advocacy. Successful distance education programs need to maintain a high level of faculty involvement. Administrators consider distance education as an important revenue source. In the foreseeable future, however, distance education cannot become a new revenue source, given its time- and labor-intensiveness and the cost of installation of new technology. The examination of two notable programs (the Learning Network at SUNY and the University of California Extension's On-Line Writing programs) confirmed these findings. (Contains 38 references and a figure listing 16 online journals and Web sites focusing on the distance education debate.)

ERIC Journal Number: EJ635419
Title: **Twelve Important Questions To Answer Before You Offer a Web Based Curriculum.**
Author(s) McAlister, M. Khris; Rivera, Julio C.; Hallam, Stephen F.
Source: Online Journal of Distance Learning Administration, v4 n2 Sum 2001
Publication Date: 2001
Availability: Available electronically: http://www.westga.edu/~distance/ojdla/summer42/summer42.html.
Document Type: **Reports--Descriptive**

Considers issues involved in Web based courses in higher education. Highlights include the institution's mission and strategies; administrative support; obstacles to adopting a Web curriculum; intellectual property issues; instructor compensation; criteria for selecting Web courses; preparation and delivery of course materials; student assessment; and students' technical skills.

ERIC Document Number: ED445601
Title: **The Virtual University: The Internet and Resource-Based Learning. Kogan Page Open and Distance Learning Series.**
Author(s) Ryan, Steve; Scott, Bernard; Freeman, Howard; Patel, Daxa
Pages: 204
Publication Date: 2000
ISBN: 0-7494-2508-3
Available from: Stylus Publishing Inc.; 22883 Quicksilver Drive, Sterling VA 20166-2012 (19.99 English pounds).
Document Type: **Reports--Descriptive**

This book, written by a team of professional educational technologists drawing on their own experiences at DeMontfort University (England), examines the impact of information technology and the Internet on higher education. The authors caution that the technological possibilities should not be allowed to obscure a fundamental aim of higher education; i.e., high-quality teaching and learning. Distance learning, or resource-based learning (RBL), must be supported by appropriate models of teaching and learning, and course design. The 10 chapters of the book: (1) offer an overview of current developments and the impact of the Internet on higher education, both in the U.K. and elsewhere; (2) present theories of teaching and learning relevant to doing RBL well, including a framework for course design; (3) introduce the key technologies of the Internet and the applications most relevant to education; (4) focus on course development and delivery; (5) examine the resources already available on the Web, including computer- mediated communication; (7) consider computer-aided assessment; (8) focus on virtual learning environments; (9) examine the impact of technology on teachers, students, and others in higher education institutions; and (10) speculate about new developments to come and the role of higher education institutions in a global context. (Contains about 200 references.)

ERIC Document Number: ED454842
Title: **ICCE/ICCAI 2000 Full & Short Papers (Web-Based Learning).**
Pages: 540
Publication Date: November 2000
Document Type: **Collected works--General; Speeches/meeting papers**

This document contains full and short papers on World Wide Web-based learning from ICCE/ICCAI 2000 (International Conference on Computers in Education/International Conference on Computer-Assisted Instruction). Topics covered include: design and development of CAL (Computer Assisted Learning) systems; design and development of WBI (Web-Based Instruction) systems; application of the Internet to cooperative and traditional learning; a WBI system supporting individual learning styles; a multinational virtual learning community; Internet-based distributed learning; interactive learning systems; collaborative teaching for creative learning; networked constructive CAI (Computer Assisted Instruction) systems; the effectiveness of a Web-based collaborative learning system on mathematics; corporate trainers' experiences with Intranet-based training; building mathematics collaborative learning Web sites; building multi-tier component-oriented multimedia CAI systems; CALL (Computer Assisted Language Learning) in cooperative learning environments; intelligent tutoring systems; constructing an in-service training Web site for teachers; constructing a real-time CAD (Computer Assisted Design) learning system; teaching models in Web-based teacher training; measuring the effectiveness of Web-based learning materials; developing a Web concordance for ESL (English as a Second Language) learners; domain specific information clearinghouses; student learning styles, motivation, learning strategies, and achievement in Web-based learning; a second language online writing system; learner control in technology-mediated learning within a constructivist model; schema theory-based instructional design of asynchronous Web-based language courses; analysis of social discourse in a network-based learning community; the Internet-based educational resources of the U.S. government; and virtual reality.

ERIC Document Number: ED446749
Title: **Proceedings of the Mid-South Instructional Technology Conference** (Murfreesboro, Tennessee, April 9-11, 2000).
Author Affiliation: Middle Tennessee State Univ., Murfreesboro
Pages: 200
Publication Date: 2000
Availability: Web site: http://www.mtsu.edu/~itconf/proceed00/index.html.
Document Type: **Collected works--Proceedings**

Presentations at this conference addressed the following topics related to instructional technology: (1) the community of learning, including students' roles in the technology revolution, how technology-based tools enhance collaborative learning, community outreach through technology, and legal issues involving intellectual property/copyright; (2) course delivery for the new millennium, including online learning, satellite or instructional television, compressed video, technology integration, use/evaluation of online course software, adaptive technology, online corporate training, online constructivist learning, and asynchronous/synchronous tools and approaches; (3) supporting instructional technology, including developing faculty mentoring programs, establishing an instructional technology center, providing technical support, and the role of technology in faculty development, promotion, and tenure; (4) pedagogy and technology integration, including the basics of teaching learning, adapting teaching to different learning styles, curricular

change/development, resources for new styles of learning, developing tools for specific knowledge domains, and courseware tool design and/or application; (5) best practices, including case studies on using technology in the classroom, transitions from traditional to online learning, World Wide Web-enhanced classrooms, online courses, library/information technology centers; and (6) on the horizon, including the application of emerging technologies, instructional technology trends, instructional planning for new technologies, dealing with issues that arise because of the addition of online classes, and diffusion of technology within educational communities. These proceedings contain 24 papers and two workshop summaries.

II. WEB-BASED VERSUS TRADITIONAL INSTRUCTION*

ERIC Document Number: ED448745
Title: **The Influence of Learning Style Preferences on Student Success in Online vs. Face-to-Face Environments.**
Author(s) Aragon, Steven R.; Johnson, Scott D.; Shaik, Najmuddin
Pages: 7
Publication Date: November 2000
Document Type: **Reports--Research; Speeches/meeting papers**

This study compared the relationship between learning style preferences and learner success of students in an online graduate level instructional design course with an equivalent face-to-face course. Comparisons included motivation maintenance, task engagement, and cognitive controls. Results revealed significant relationships between preferences and course success on five constructs for the face-to-face students and no significant relationships for the online students. Overall, the findings suggest that students can be equally successful in face-to-face and online environments regardless of learning style preferences. (Contains 10 references.)

ERIC Journal Number: EJ600787
Title: **Virtual Classroom versus Physical Classroom: An Exploratory Study of Class Discussion Patterns and Student Learning in an Asynchronous Internet-Based MBA Course.**
Author(s) Arbaugh, J. B.
Source: Journal of Management Education, v24 n2 p213-33 Apr 2000
Publication Date: April 2000
ISSN: 1052-5629
Document Type: **Reports--Research**

Class discussions and student interaction were compared in a conventional class (n=33) and an Internet-based class using LearningSpace(R) software (n=29). No significant differences in learning or interaction quality were found. There was significantly more participation in the Internet course, particularly by women.

ERIC Journal Number: EJ629816
Title: **A Comparison of Online and Traditional Computer Applications Classes.**
Author(s) Cooper, Linda W.
Source: T.H.E. Journal, v28 n8 p52,54,56,58 Mar 2001
Publication Date: 2001
ISSN: 0192-592X
Document Type: **Reports--Research**

Compares online instruction and traditional classroom instruction at Macon State College (Georgia) in terms of both student perceptions and student performance as measured by grade distribution. Considers student gender, age, and employment status and reports the results of course evaluations.

ERIC Document Number: ED443410
Title: Online Discussion: How Do Students Participate?
Author(s) Davidson-Shivers, Gayle; Tanner, Erica; Muilenburg, Lin
Pages: 8
Publication Date: April 2000
Document Type: **Reports--Research; Speeches/meeting papers**

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* See p.4 for how to get full-text copies of ERIC documents and journal articles cited in this bibliography.

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Report No: NSU-RP-R-00-08
Document Type: **Numerical/Quantitative Data; Reports--Research**

This research asked whether there was a difference in student outcomes in courses taught in both Internet-based and campus-based formats. Thirty-four courses were offered in both Internet-based and campus-based formats at Nova Southeastern University (Florida) during fall term 1999, enrolling 1,613 undergraduate and graduate students. Outcomes were evaluated on two dimensions: successful grades (D+ or better) and course completion rates (completers vs. noncompleters). Statistical analysis revealed that the campus-based format was the most successful for undergraduates, with grades 11 to 13 percent higher and completion rates 14 percent higher. However, undergraduates' final grades were not significantly different in the Internet-based or campus-based formats. Graduate students performed better in Internet-based than in campus-based sections, for grades overall, for completion rates, and for final grades. The study found that both undergraduate and graduate students had high rates of success (greater than 75 percent for grades) and completion (greater than 80 percent). Nova Southeastern compared favorably with other universities on completion rates. Report sections include an introduction, methodology, results, and discussion. Data tables are appended. (Contains 11 references.)

ERIC Document Number: ED457778
Title: **A Comparison of Distance Learning and Traditional Learning Environments.**
Author(s) Glenn, Amy S.
Pages: 27
Publication Date: 2001
Document Type: **Reports--Research**

This study investigated differences between distance education and on-campus students using samples from a population of political science students. One group of 101 students was enrolled in Texas government classes taught on campus, and the other group of 101 students was enrolled in Texas government classes taught by Internet. A multiple-choice pretest was administered again as a posttest to measure student progress. A survey instrument was also used to collect student demographic data and perceptions of the course. For the pretest an independent samples t-test was used to determine whether differences in pretest performance existed between the two groups. No statistically significant differences were found in pretest performance between the groups. No statistically significant differences were found for posttest performance between the groups. Differences in survey scores for the two groups were not statistically significant. A Pearson-product moment correlation coefficient was calculated to determine the relationship between student performance and perceptions, using posttest scores and survey perceptions. The results indicate that no statistically significant relationship exists between scores and perceptions in either the on-campus group or the Internet group. (Contains 5 tables and 20 references.)

ERIC Document Number: ED453794
Title: **Using the Web To Deliver and Enhance Classes: Two Case Studies.**
Author(s) Helford, Paul Q.; Lei, Richard M.
Pages: 8
Publication Date: 1999
Availability: For full text: http://www.hut.fi/events/eunis99/Asession/A31.htm;
Track A: http://www.hut.fi/events/eunis99/TrackA.html.
Document Type: **Reports--Research; Speeches/meeting papers**

This paper discusses two case studies conducted at Northern Arizona University. The studies are from classes that are using the World Wide Web to enhance teaching and learning. One class is the Art of Cinema, a film studies class that has been taught via Instructional Television (ITV) for five years. Various techniques have been used over the years to increase class interaction. This paper addresses a step-by-step procedure for effectively using the Web to enhance the learning environment in large enrollment courses like this one by increasing interaction between student and teacher and among students. The second class, Creative Advertising Strategies, was developed as a fully Web-based course in the summer and fall of 1997 and taught on the Web, concurrently with a traditional classroom section, in spring of 1998. A pilot study was conducted to determine student satisfaction of a Web-based versus a traditional classroom environment and comparisons are made to each other. Results of the study, along with implications for future Web-based courses, are provided in this paper.

ERIC Document Number: ED448722
Title: **Comparative Analysis of Online vs. Face-to-Face Instruction.**
Author(s) Johnson, Scott D.; Aragon, Steven R.; Shaik, Najmuddin; Palma-Rivas, Nilda
Pages: 7
Publication Date: October 1999
Document Type: **Reports--Research; Speeches/meeting papers**

This empirical study compared a graduate online course with an equivalent course taught in a traditional face-to-face format. Comparisons included student ratings of instructor and course quality; assessment of course interaction, structure, and support; and learning outcomes such as course grades and student self-assessment of ability to perform various Instructional Systems Design (ISD) tasks. Results revealed that the students in the face-to-face course held slightly more positive perceptions about the instructor and overall course quality, although there was no difference between the two course formats in learning outcomes. The findings have direct implications for the development and delivery of online instruction. (Contains 16 references.)

ERIC Journal Number: EJ628347
Title: **Teaching Introductory International Relations in an Entirely Web-based Environment: Comparing Student Performance across and Within Groups.**
Author(s) Johnson, Susan M.
Source: Ed Education at a Distance, v15 n10 Jan 2001
Publication Date: 2001
Available on the Web at: http://www.usdla.org/EDmagazine/illuminactive/JAN01Issue/article01.html
Document Type: **Reports--Research**

Discussion of distance education in colleges and universities focuses on a case study that compared completion rate and exam performance of a Web-based section of an international relations course with a traditional section of the course. Also examined gender differences in the Web-based course and found that female students performed better than males.

ERIC Document Number: ED432286
Title: **A Comparison of an All Web-Based Class to a Traditional Class.**
Author(s) Jones, Edward R.
Pages: 7
Publication Date: March 1999
Document Type: **Reports--Research; Speeches/meeting papers**

A recent study at California State University at Northridge reported that students in a virtual classroom score 20% higher than students in a traditional classroom. The primary purpose of the study presented in this paper was to replicate these results and to investigate advantages and disadvantages of a World Wide Web-based class. Major objectives were to: (1) evaluate performance differences between students in a Web-based class and those in a traditional classroom setting when students are allowed to select the course they prefer; (2) evaluate the hypothesis that the background of students who prefer to enroll in a Web-based course is not different from those who prefer to enroll in a traditional class; and (3) identify what advantages the technology used in a Web-based class has in terms of enhancing learning objectives. Participants were 89 students enrolled in two sections of an introductory statistics course at Texas A&M University Corpus Christi, one taught in a traditional classroom and the other taught entirely via the Internet. Dependent variables were student demographics, test scores, and student withdrawal and passing rates. The major conclusion was that the results reported in the earlier study do not appear to be reproducible, at least with this student population. (Contains five tables and six references.)

ERIC Journal Number: EJ633611
Title: **Analysis of a Distance-Education Program in Organic Chemistry.**
Author(s) Kurtz, Martha J.; Holden, Brandt E.
Source: Journal of Chemical Education, v78 n8 p1122-25 Aug 2001
Publication Date: 2001
ISSN: 0021-9584
Document Type: **Reports--Research**

Assesses the performance and attitudes of students learning organic chemistry from an off-campus site in comparison to the performance and attitudes of students learning organic chemistry in a traditional classroom. Indicates no statistically significant differences between the groups. (Contains 17 references.)

ERIC Journal Number: EJ607569
Title: **Comparison of Student Outcomes and Preferences in a Traditional vs. World Wide Web-based Baccalaureate Nursing Research Course.**
Author(s) Leasure, A. Renee; Davis, Lisa; Thievon, Susan L.
Source: Journal of Nursing Education, v39 n4 p149-54 Apr 2000
Publication Date: 2000
ISSN: 0022-3158
Document Type: **Reports--Research**

Comparison of 48 nursing students in a traditional research course and 18 taking the course on the Web showed no differences in learning outcomes. Reasons for preferring the classroom were increased interaction, decreased potential for procrastination, and immediate feedback. The Web group cited cost, convenience, and flexibility. Self-directed, self-paced students were most suited to Web-based courses.

ERIC Document Number: ED458237
Title: **Analysis of Discussion Items by Males and Females in Online College Courses.**
Author(s) McAllister, Catherine; Ting, Evelyn
Pages: 26
Publication Date: April 2001
Document Type: **Reports--Research; Speeches/meeting papers**

Proponents of computer-mediated education suggest that the reflectivity, interactivity, and collaboration of online discussion provide an egalitarian learning environment for men and women. Others suggest that on-line discussion contains the same gender bias as face-to-face classroom communication. This study analyzed the 456 discussion postings of 34 students in 2 online college courses. Each discussion posting was analyzed for seven variables: frequency, length, readability, audience, purpose, reference, and format. Male and female discussion items differed significantly in length, use of indicators to specify a particular reader, purpose, and use of formal signature. Male and female discussion items did not differ in frequency, readability, intended audience, or references to personal experience or outside sources. From this preliminary study, a number of additional items are identified for investigation. Five appendixes contain figures illustrating points of the discussion. (Contains 10 tables and 29 references.)

ERIC Document Number: ED445649
Title: **Cost Analysis of Online Courses.** AIR 2000 Annual Forum Paper.
Author(s) Milam, John H., Jr.
Pages: 36
Publication Date: May 2000
Document Type: **Reports--Research; Speeches/meeting papers**

This paper presents a complex, hybrid, method of cost analysis of online courses, which incorporates data on expenditures; student/course enrollment; departmental consumption/contribution; space utilization/opportunity costs; direct non-personnel costs; computing support; faculty/staff workload; administrative overhead at the department, dean, and institution level; revenue stream; and financial aid. Data compared costs of online versus traditional courses at an

urban, public, doctoral university for four pairs of courses: English, management information systems, decision sciences, and astronomy. Among the findings noted are the following: total expenditures for traditional and online courses are in relatively the same range (with one exception which had high overhead but also high revenues); net costs per section are higher for online courses; departments which have extensive course sections benefit by offering online courses; there are significant startup costs in personnel, mainly attributable to content development for online courses; in this study all the online courses were taught by full-time faculty, which ensured quality but increased cost; space is a cost-saving factor with some online courses. The paper notes that an important by-product of this process is information about the changing nature of faculty roles in online teaching and a better understanding of how to use technology cost effectively. (Contains 28 references.)

ERIC Journal Number: EJ623867
Title: **Assessing Differences in Instructional Methods: Uncovering How Students Learn Best.**
Author(s) Ostiguy, Nancy; Haffer, Ann
Source: Journal of College Science Teaching, v30 n6 p370-74 Mar-Apr 2001
Publication Date: 2001
ISSN: 0047-231X
Document Type: **Reports--Descriptive; Reports--Research**

Describes a study used to assess student outcomes in general education science courses using different learning environments. There was no significant difference found in achievement in the different learning environments. Television and web students reported greater levels of interaction with the instructor and were more likely to report dissatisfaction with the level of interaction.

ERIC Journal Number: EJ633674
Title: **Do No Harm--A Comparison of the Effects of On-Line vs. Traditional Delivery Media on a Science Course.**
Author(s) Schoenfeld-Tacher, Regina; McConnell, Sherry; Graham, Michele
Source: Journal of Science Education and Technology, v10 n3 p257-65 Sep 2001
Publication Date: 2001
ISSN: 1059-0145
Document Type: **Reports--Research**

Presents the results of a study examining the effects of distance delivery on student performance and classroom interactions in an upper level Histology course. Finds that students in an on-line group significantly out-perform their peers in an on-campus section.

ERIC Journal Number: EJ631230
Title: **Teaching College Courses Online versus Face-to-Face.**
Author(s) Smith, Glenn Gordon; Ferguson, David; Caris, Mieke
Source: T.H.E. Journal, v28 n9 p18-22,24,26 Apr 2001
Publication Date: 2001
ISSN: 0192-592X
Document Type: **Reports--Research**

Examines the differences faculty experience in teaching online courses versus traditional courses. Discusses distance education; results of faculty interviews; reliance on text-based communication and a lack of visual cues with online courses; advantages of online classes; threaded discussions in Web-based classes; and differences in faculty-student relationships.

ERIC Document Number: ED443378
Title: **Assessing the Effectiveness of Distance Education versus Traditional On-Campus Education.**
Author(s) Tucker, Shelia Y.
Pages: 14
Publication Date: April 2000
Available from: EDRS in microfiche or paper copy
Document Type: **Reports--Research; Speeches/meeting papers**

This study compared the effectiveness of distance education versus on-campus education, as measured by pre- and post-tests, differences in final exam scores and final course grades, age, and preferred learning styles. Learning style preferences were determined by the Canfield Learning Styles Inventory. Participants included 47 undergraduate students enrolled in a business communications course at a North Carolina university; 23 students were enrolled in the traditional on-campus class and 24 students in the distance education class. Both groups had the same instructor and studied the same course content in the same time frame; classes differed in terms of scheduling, accessibility to the instructor, and instructional media and method. The study found no significant differences between pre-test scores and final course grades. However, analysis revealed significant differences in post-test scores, final exam scores, and students' age, with distance education students (who were on average older than traditional students) having higher post-test scores and higher final exam scores. No differences were observed in final course grades. Analysis of learning style preferences found a preference for organization and detail in both groups; the least preferred style for traditional students was independent, and for distance students, the least preferred style was authority. (Contains 16 references.)

ERIC Document Number: ED456790
Title: **Comparing Online and Face-to-Face Instruction at a Large Virtual University: Data and Issues in the Measurement of Quality**. AIR 2001 Annual Forum Paper.
Author(s) Wisan, Gail; Nazma, Shirin; Pscherer, Charles P., Jr.
Pages: 28
Publication Date: June 05, 2001
Document Type: **Reports--Research; Speeches/meeting papers; Test/ questionnaires**

The fiscal year 2000 Alumni Survey at a large, substantially online university was used to assess undergraduate students' satisfaction with both online and face-to-face academic quality and student services. Students who had taken online classes evaluated both their online and face-to-face classes. In addition, students who took only face-to-face classes evaluated them. Responses were received from 567 graduates, representing a 31% response rate. Differences between the online and face-to-face students' ratings of face-to-face academic quality raised questions about the significance of context for self-reported data. Several of the differences in rating actually favored face-to-face among students who took only one online course. However, when students took four or more online courses, they rated their online classes as superior in their satisfaction with such key academic quality indicators as "develop critical thinking" and "rigor and scholarship." Other measurement issues related to whether online and face-to-face classes should be compared are discussed. One appendix contains a survey overview, and the other contains the survey. (Contains 6 tables and 17 references.)

ERIC Document Number: ED457743
Title: **Time as a Dimension of the Digital Divide: Profiles over Time of Students Taking Online, Face-to-Face, or Mixed Delivery Classes at a Large Virtual University**. AIR 2001 Annual Forum Paper.
Author(s) Wisan, Gail; Roy, Pallabi Guha; Pscherer, Charles P., Jr.
Pages: 30
Publication Date: June 04, 2001
Document Type: **Reports--Research; Speeches/meeting papers**

A large virtual university, a participant in a major distance study, is tracking students' enrollment in online or both online and face-to-face classes (i.e., mixed). Although an online students' profile provides data for examining the digital divide, one-time snapshots are inadequate. Time must be included as a dimension of any analysis of demographic groups' participation in online education. Two aspects of time were analyzed: calendar time (3 years of trend data) and time in

relationship to degree. The paper provides data on the ethnic, gender, age, and demographic distribution of online and "mixed" students. In all, data were available for 16,092 students in 1999, 18,311 in 2000, and 20,920 in 2001. Trend data on how ethnic groups and other demographic groups are self-selecting classes with different delivery formats speak more directly to understanding the digital divide. The paper provides 3 fiscal years of percentages (FY 1999 to FY 2001) of different demographic groups (ethnic, gender, age, and geographic) enrollment in online, mixed, and face-to-face education at a large, substantially virtual university during a period of rapid expansion in online education. The paper discusses the implications for the digital divide of this enrollment trend data. (Contains 3 figures, 9 tables, and 14 references.)

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III. CONSTRUCTING WEB-BASED COURSES AND CURRICULA*

ERIC Document Number: ED448746
Title: **Instructional Design Attributes of Web-Based Courses.**
Author(s) Bi, Xiaoshi
Pages: 7
Publication Date: November 2000
Document Type: **Reports--Research; Speeches/meeting papers**

In an effort to apply traditional instructional design theories to World Wide Web course development, this qualitative research study examined experiences in Web course design and delivery and explored what components affected Web-based course design. The purpose of the study was to identify and document instructional design attributes of the Web courses that contribute to the comprehension of online instruction and the relationships between these major areas in Web-based courses: instructional design; course development; content delivery; and administrative support. Data were collected through analysis of course materials, interviews with faculty, instructional designers, administrators, and distant learners, and analysis of online instruction activities at three higher education institutions. Four major findings in Web course design provide a base for the teaching and learning transaction: (1) the online instruction should be designed specifically for the distance learners; (2) the design must incorporate phases that are both immediate and long-range; (3) the design of the instruction should be systematic in nature; and (4) the designing of the instruction, and therefore the inclusion of the instructional strategy and delivery mode, must be based upon the knowledge of how the distance student is going to learn.

ERIC Journal Number: EJ625257
Title: **Adapting a Master's Degree Course to the Web: A Case Analysis.**
Author(s) Bichelmeyer, Barbara A.; Misanchuk, Melanie; Malopinsky, Larissa
Source: Quarterly Review of Distance Education, v2 n1 p49-58 Spr 2001
Publication Date: 2001
ISSN: 1528-3518
Document Type: **Reports--Descriptive**

Describes the adaptation of "Instructional Design and Development" from a residential course to a World Wide Web-based course offered in the distance Masters' degree program in Instructional Systems Technology at Indiana University. A description of the Web-based course, findings regarding the adaptation process, and implications for adapting a course to the Web are discussed.

ERIC Journal Number: EJ613255
Title: **Teaching on the Web: With a Little Help from My Pedagogical Friends.**
Author(s) Bonk, Curtis J.; Dennen, Vanessa
Source: Journal of Computing in Higher Education, v11 n1 p3-28 Fall 1999
Publication Date: 1999
ISSN: 1042-1726
Document Type: **Reports--Descriptive**

This overview of development of Web-based college courses discusses: costs and benefits of Web tools; a 10-level Web integration continuum; a learner-centered view of Web learning; ways to embed critical thinking, creative thinking, and cooperative learning into Web-based courses; sample Web courses and tools; and pedagogical implications. Examples are from Indiana University.

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* See p.4 for how to get full-text copies of ERIC documents and journal articles cited in this bibliography.

ERIC Document Number: ED446752
Title: **Taking Instruction Online?**
Author(s) Carlson, Rosemary; Everett, Donna R.
Pages: 12
Publication Date: 2000
Available from: the Web at http://www.mtsu.edu/~itconf/proceed00/carlson.html.
Document Type: **Guides--Classroom--Teacher; Reports--Descriptive ; Speeches/meeting papers**

This paper provides a checklist of suggestions, hints, and competencies needed to take an online course from ideas to reality. The introduction addresses the pedagogical potential of the World Wide Web. Migrating the course to the online environment is discussed in the first section, focusing on the following considerations: determining course objectives; etiquette; developing course materials; reviewing existing course materials; access to library materials and the instructor; and organizing course materials and the course plan. The second section addresses managing groups in the online environment, including the factors of time, group size, overcoming distance, getting started with collaborative learning, and examples of group activities. Developing Web content for the Internet course is considered in the third section, including content writing and hypertext, writing style, and interactivity and non-linear content. The next section covers assessment and evaluation issues, including formative and summative evaluations, dialogue, chat room visits, student assignments, and group assignments. The fourth section covers choosing courseware for online instruction, and a table summarizes suggested collaborative projects for the distance learning environment. (Contains 13 references.)

ERIC Journal Number: EJ639630
Title: **The Ideal Online Course.**
Author(s) Carr-Chellman, Alison; Duchastel, Philip
Source: Library Trends, v50 n1 p145-58 Sum 2001
Publication Date: 2001
ISSN: 0024-2594
Document Type: **Reports--Descriptive**

Addresses key issues facing designers of Web-based university courses. Topics include online courses; the technologies involved; online study guides; assignments; online examples; course communications; interactive skill building; theoretical bases; and constructivism and instructional design.

ERIC Document Number: ED432254
Title: **Web-Based Instruction: Focus on Learning.**
Author(s) Downs, Elizabeth; Carlson, Randal D.; Repman, Judi; Clark, Kenneth
Pages: 8
Publication Date: March 1999
Document Type: **Reports--Evaluative; Speeches/meeting papers**

The higher education environment is currently being revolutionized by the challenge of online course offerings. Many obstacles stand ready to confront those instructors who are faced with the task of utilizing this new instructional environment. The instructional aspects of Web-based learning are often viewed as secondary to the technical issues that require a new set of skills for most instructors. This paper suggests that it is important to apply instructional design to the many aspects of designing and delivering effective Web-based instruction. Presents a model for the design of Web-based instruction that includes these phases: analyze, design, develop, disseminate, and evaluate/revise. Each of these phases is discussed in detail. (Contains 1 figure and 20 references.)

ERIC Journal Number: EJ635409
Title: **E-CLASS: Creating a Guide to Online Course Development for Distance Learning Faculty.**
Author(s) Gerson, Steven M.
Source: Online Journal of Distance Learning Administration, v3 n4 Win 2000
Publication Date: 2000
Availability: Available electronically: http://www.westga.edu/~distance/ojdla/winter34/winter34.htm.

Document Type: **Reports—Descriptive**

Discusses the lack of strategies regarding distance education standards, policies, or procedures in higher education; describes barriers to successful online education; and explains the E-CLASS model to help faculty with online course development. Topics include Web site components and Web site design considerations.

ERIC Document Number: ED436171
Title: **Planning and Implementing Web-Based Instruction: Tools for Decision Analysis.**
Author(s) Harmon, Stephen W.; Jones, Marshall G.
Pages: 7
Publication Date: February 1999
Document Type: **Reports--Descriptive; Speeches/meeting papers**

This paper discusses issues and factors involved in making decisions on whether to use World Wide Web-based instruction. Five levels of Web-based instruction (no Web use, informational, supplemental, essential, communal, or immersive Web use) are discussed, and the following factors are identified to consider before making the decision to put classes online: (1) distance, i.e., the geographical proximity of the instructor and students; (2) stability of material; (3) need for multimedia; (4) need for student tracking, i.e., the desirability and degree of accounting for student interaction with and progress through the course; (5) number of students; (6) amount of interaction needed; (7) social pressures; (8) need for online references; (9) infrastructure and technical support; (10) comfort levels; and (11) access to the Internet and equipment.

ERIC Journal Number: EJ603812
Title: **Some Design Strategies for Developing an Online Course.**
Author(s) Harrison, Nancy; Bergen, Carole
Source: Educational Technology, v40 n1 p57-60 Jan-Feb 2000
Publication Date: 2000
ISSN: 0013-1962
Document Type: **Reports--Descriptive**

Provides general design suggestions for developing a Web-based online course for distance education in higher education. Highlights include faculty training and preparation; course structure; course outline for students; weekly modules; fostering a community of learners; required papers; and testing.

ERIC Journal Number: EJ616758
Title: **Chronicling the Challenges of Web-Basing a Degree Program: A Systems Perspective.**
Author(s) Hirumi, Atsusi
Source: Quarterly Review of Distance Education, v1 n2 p89-108 Sum 2000
Publication Date: 2000
ISSN: 1528-3518
Document Type: **Reports--Descriptive**

Describes efforts by a team of faculty, staff, students, and administrators at a small southwestern university to "Web-base" a graduate degree program. Identifies eight functional system components that must be addressed and aligned to promote distance learning. Discusses key issues and decisions made during development of the system in the context of each component, along with preliminary evaluation data and anecdotal reports from systems stakeholders. (Contains 27 references.)

ERIC Journal Number: EJ621840
Title: **Using the Theory of Equivalency To Bring On-Site and Online Learning Together.**
Author(s) Hoffman, Suzanne Queen; Martin, Michael S.; Jackson, John Edward
Source: Quarterly Review of Distance Education, v1 n4 p327-35 Win 2000
Publication Date: 2000
ISSN: 1528-3518
Document Type: **Reports--Descriptive**

Discussion of distance education versus traditional instruction focuses on courses being converted at the Naval War College to Web-based courses. Explains equivalency theory, which aligns the learning experiences of online learners with those of on-site learners so that either scenario should yield the same outcomes.

ERIC Document Number: ED448687
Title: **Web Teaching Guide: A Practical Approach to Creating Course Web Sites.**
Author(s) Horton, Sarah
Pages: 242
Publication Date: 2000
ISBN: 0-300-08726-8
Availability: Yale University Press, P.O. Box 209040, New Haven, CT 06520-9040 (cloth: ISBN-0-300-08726-8, $35; paper: ISBN-0-300-08727-6, $15.95). Tel: 203-432-0964; Tel: 800-987-7323 (Toll Free); Fax: 203-432-0972; e-mail: custservice.press@yale.edu; Web site: http://www.yale.edu/yup.
Document Type: **Book ; Guides--Non-classroom**

This book outlines an approach to putting course content on the Web. It explains how to make current course materials Web-ready and describes Web-enabled teaching tools that educators may not currently use but that they might wish to incorporate into the teaching approach. The book explains how to combine these materials and tools to create a useful and effective course Web site. The development process outlined in this book follows this course: planning the project with care; converting course materials and developing new content; developing the Web site; incorporating the site into the teaching method; and evaluating the site's success. Illustrations are included throughout the text. Sources in the bibliography are presented under the following categories: Web site design; text; multimedia; usability testing; copyright and intellectual property; using the Web and Web teaching. Includes an index. (Contains 51 references.)

ERIC Document Number: ED444479
Title: **Evaluation of World Wide Web Delivered University Courseware: Creating an Instrument Appropriate for a New Course Delivery Medium.**
Author(s) Izat, James G.; McKinzie, LeAnn; Mize, Charles D.; McCallie, Trey
Pages: 6
Publication Date: 2000

Document Type: **Reports--Research; Speeches/meeting papers**
This research, performed during 1998 and 1999, had as its purpose the development and validation of a course/instructor evaluation instrument specifically for use with graduate and undergraduate courses delivered online via the World Wide Web. The primary goal of the study was to develop an instrument that would collect valid perception data from students at West Texas A&M University concerning technology of delivery, course content, and instructor-related aspects of courseware delivered via the Internet. To this end, an instrument was developed using the input of two panels of university faculty, administrators, and staff and repeated pilot studies to collect data on the validity and reliability of the instrument. Feedback received from the expert panels, short- and long-term pilot studies, and analysis of the collected data provided preliminary evidence to support the validity and reliability of this Internet delivered course-specific evaluation instrument. (Contains 13 references.)

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ERIC Document Number: ED446766
Title: **Building a Supportive Online Instructional Environment for Reluctant, Apprehensive, and/or Under-Prepared Learners.**
Author(s) Jansak, Kathryn
Pages: 10
Publication Date: 2000
Available from: on the Web at: http://www.mtsu.edu/~itconf/proceed00/jansak.htm.
Document Type: **Reports--Descriptive; Speeches/meeting papers**

This paper presents tips for designing an instructional World Wide Web site, providing illustrations from a site developed using Blackboard's Courseinfo that is used in teaching a college technical writing course. The first section discusses overall site architecture, including working with the right equipment, making the leap to an online delivery method gradually, breaking the curriculum into short instructional units, making each instructional unit task-oriented and assigning a definite outcome, contemplating the "rhythm" of online work for instructor and students, building a firm but simple structure of mini-deadlines into the course, employing alternative delivery methods for Web-unfriendly media, keeping it simple, learning enough HTML to build and manipulate basic pages with graphics, loading pages directly onto the site, and taking an online course. Site efficiency is covered in the second section, including establishing and repeating visual/informational patterns. The third section addresses serving student needs, including telling students what to expect. Building community and fostering enthusiasm/participation are considered in the fourth section, including sending class-wide e-mails weekly and requiring some sort of weekly posting or contact with the site. The final section discusses encouraging reliance on the course site by making the site a "one-stop shop."

ERIC Journal Number: EJ625227
Title: **Toward a Collaborative Model for the Design of Web-based Courses.**
Author(s) Kang, Shumin
Source: Educational Technology, v41 n2 p22-30 Mar-Apr 2001
Publication Date: 2001
ISSN: 0013-1962
Document Type: **Reports--Research**

Discusses the development of online courses in higher education and the use of the Web for new modes of communication and information retrieval. Describes a study that examined instructional design for Web-based instruction and suggests implications for the conceptualization of a collaborative model for the design of online courses.

ERIC Document Number: ED455815
Title: **Current Status of Learner Support in Distance Education: Emerging Issues and Future Research Agenda.**
Author(s) Lee, Ji-Yeon
Pages: 10
Publication Date: October 2000
Document Type: **Reports--Evaluative; Speeches/meeting papers**

The importance of learner support has been emphasized over and over in the distance education literature but there is a lack of comprehensive analysis of this issue. Besides that, most of existing studies on learner support are based on large-scale correspondence program and few of them provide guidelines for planning and implementing support services in Web-based environments for dual-mode institutions, which is the majority of distance education program providers in nowadays. In this paper, a body of literature on learner support, including various journal articles and technical reports, was examined, and three issues emerged from the review: (1) the lack of research on cost-effectiveness of learner support; (2) the lack of empirical research; and (3) the need for learner-centered approach in designing and implementing learner support. These issues are discussed in detail to enhance understanding of learner support in post-secondary level distance education program, and it is further argued that future research should focus more on developing and refining methods for cost-benefit analysis of learner support, developing a general framework of learner support model in dual-mode institutions, and developing systematic methods to identify, analyze, synthesize, and assess the needs of distance learners. (Contains 63 references.)

ERIC Document Number: ED444476
Title: **An Overview of Online Educational Delivery Applications.**
Author(s) Marsh, George E., II; Price, Barrie Jo; McFadden, Anna C.
Pages: 7
Publication Date: 2000
Document Type: **Reports--Descriptive; Speeches/meeting papers**

This paper is a report on the types of online delivery applications used in institutions of higher education (IHEs) to develop and implement World Wide Web-based courses. Many IHEs are grappling with ways to implement and manage online instruction by using local personnel and resources, purchasing some components of management, or outsourcing distance education entirely. While each institution will make decisions that meet its unique needs, it is important to know about the range of possibilities available to university administrators today. The major problems confronting IHEs are twofold: the lack of technical skill among faculty members to convert their courses into online formats; and the need to support and manage distance education. The paper provides an overview of popular online educational delivery applications from the following commercial vendors: Blackboard, Collegis, Complete On-Line Teaching Systems (COLTS), Convene, Creator, e-College, e-Education, Embanet, MadDuck Technologies, SocratEase, WBT Systems, and WebCT. Evaluation criteria for online delivery applications are listed.

ERIC Journal Number: EJ635423
Title: **Applying Constructivist and Objectivist Learning Theories in the Design of a Web-based Course: Implications for Practice.**
Author(s) Moallem, Mahnaz
Source: Educational Technology & Society, v4 n3 p113-25 Jul 2001
Publication Date: 2001
ISSN: 1436-4522
Availability: Available on the Web at: http://ifets.ieee.org/periodical/vol_3_2001/v_3_2001.html
Document Type: **Reports--Descriptive**

Provides an overview of the process of designing and developing a Web-based course using instructional design principles and models, including constructivist and objectivist theories. Explains the process of implementing an instructional design model in designing a Web-based undergraduate course and evaluates the model based on course evaluations.

ERIC Document Number: ED439697
Title: **Running behind the Best Pedagogy To Develop a Telematised Teaching Environment: A Case Study between Turkey and the USA.**
Author(s) Ozden, M. Yasar; Cagiltay, Kursat
Pages: 19
Publication Date: 2000
Document Type: **Reports--Research**

This paper focuses on developing, implementing and evaluating an online, graduate-level distance education course--the first distance-based course to be offered over the Internet for students in Turkey. The authors present experiences of setting up such a course when students and faculty are 10,000 miles apart. The limitations and difficulties that distance course designers might face when designing a course for students in a developing country are shown. Experiences and findings that resulted from this course are presented, along with background information on the Turkish educational system, course details, pedagogical approaches, technical and administrative problems, political concerns, user support, assessment, modifications, and future plans. (Contains 18 references.)

ERIC Journal Number: EJ637559
Title: **Increasing Productivity in Course Delivery.**
Author(s) Presby, Leonard
Source: T.H.E. Journal, v28 n7 p52-58 Feb 2001
Publication Date: 2001
ISSN: 0192-592X
Availability: Available on the Web at: http://www.thejournal.com/magazine/vault/M2629.cfm
Document Type: **Reports--Descriptive**

Discusses the development of online courses in higher education that can be used to supplement traditional classes. Explains requirements for designing a successful course, including flexibility to accommodate differences in learning styles, textbook connections, and class interaction; and reports results of a course evaluation.

ERIC Journal Number: EJ626748
Title: **From Bricks and Mortar to Clicks and Modems: The Redesign of a Graduate Program.**
Author(s) Recesso, Arthur; Zahner, Jane; Brovey, Andrew; Wiley, Ellen; Price, Catherine
Source: Educational Media and Technology Yearbook, v26 p125-36 2001
Publication Date: 2001
ISSN: 8755-2094
Document Type: **Reports--Descriptive**

Describes the Valdosta State University (Georgia) Department of Curriculum and Instructional Technology's venture into creating its own online graduate degree program without the assistance of private vendors. Topics discussed include the new program design process, student recruitment, technologies used to build and support the program, and the resulting current program.

ERIC Journal Number: EJ626235
Title: **Design Considerations for an Effective Online Environment.**
Author(s) Rosenkrans, Ginger
Source: Journalism and Mass Communication Educator, v56 n1 p43-61 Spr 2001
Publication Date: 2001
ISSN: 1077-6958
Document Type: **Reports--Descriptive; Reports--Research**

Describes the development of an online segment for Pepperdine University's course, Philosophy and Effects of Mass Communication. Presents a snapshot of a pilot test instrument, the process used to test the online segment of the course, and a summary of results from the online segment. Notes several benefits associated with the online learning environment.

ERIC Journal Number: EJ605327
Title: **Systematic Planning in the Design of an Educational Web Site.**
Author(s) Ruffini, Michael F.
Source: Educational Technology, v40 n2 p58-64 Mar-Apr 2000
Publication Date: 2000
ISSN: 0013-1962
Document Type: **Reports--Descriptive**

Provides basic guidelines for designing and creating a faculty Web site using a systems approach. Describes instructional design principles used in Web site design, including considering the target audience, clear objectives, home page and contents, site navigation structure, page design, text and graphics, and selecting a Web authoring program.

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ERIC Journal Number: EJ647624
Title: **The Rise of the Virtual University.**
Author: Schank, Roger
Publication Date: 2002
Source: Quarterly Review of Distance Education; v3 n1 p75-90 Spr 2002
ISSN: ISSN-1528-3518
Document Type: Reports—Descriptive

Discusses virtual universities and the design of Web courses. Topics include current traditional college courses; computer assisted instruction; reconsidering education; why professors teach; what they teach; what students expect; how employers view graduates; certification; why knowledge is overrated; goal-based course design; and conceptual changes in students.

ERIC Document Number: ED455793
Title: **Making Them Work for the IST Online Program: A Case Study.**
Author(s) Sheu, Feng-Ru; Alford, Paul
Pages: 7
Publication Date: October 2000
Available from: EDRS Price MF01/PC01 Plus Postage.
Document Type: **Reports--Research; Speeches/meeting papers**

Library service is one of the critical elements for designing a successful distance program in terms of learner support at a distance. Before a library service can be developed, three questions need to be answered: First, what are the expectations and needs of students and faculty in online programs? Second, what kinds of library services are critical to faculty and students in online programs? Finally, are these expectations and needs met by the services offered? The purpose of this study was to identify important library services for the Instructional Systems Technology distance program at Indiana University, based on the needs and expectations of students, faculty, librarians, and administrators. The important library services for distance education were identified through a review of the literature; interviews with students, faculty, librarians and administrators; researchers' previous experiences; brainstorming; and discussion with librarians. (Contains 11 references.)

ERIC Journal Number: EJ625213
Title: **Distance Education Copyright, Intellectual Property, and Antitrust Concerns.**
Author(s) Smith, Kenneth D.; Eddy, John Paul; Richards, Thomas C.; Dixon, Paul N.
Source: American Journal of Distance Education, v14 n2 p5-13 2000
Publication Date: 2000
ISSN: 0892-3647

An empirical examination of accredited American higher education institutions was conducted to obtain baseline data regarding copyright, intellectual property, and antitrust concerns in Internet-based distance education. A multiple-case study reviewing best practices of the top 10 accredited distance education institutions in American was also conducted. Growth of distance education programs and policy development, and differences between public and private institutions' approaches are discussed.

ERIC Document Number: ED444601
Title: **Who Owns Online Courses and Course Materials? Intellectual Property Policies for a New Learning Environment.** Pew Symposia in Learning and Technology (2nd, Miami, Florida, February 17-18, 2000).
Author(s) Twigg, Carol A.
Author Affiliation: Rensselaer Polytechnic Inst., Troy, NY. Center for Academic Transformation.
Pages: 31
Publication Date: February 2000

The second of the Pew Symposia in Learning and Technology, whose purpose is to conduct an ongoing national conversation about issues related to the intersection of learning and technology, focused on policy issues related to the

development and ownership of online courses and course materials. This paper builds on the work of participants, and captures the discussion and general conclusions. First presented as adaptations are each of the four cases examined at the Symposium to raise awareness of the issues and to stimulate discussion. The Arthur Miller case and the Unext.com case represent two sides of the same issue: the transfer of intellectual property from individual faculty members to organizations other than the home institution. The CaseNET case and the Math Emporium case represent two approaches to the commercialization of technology-mediated materials and methodologies. Following these cases, the paper discusses the context of online courses and course materials, and examines the two scenarios that are contributing to the state of anxiety in higher education. Discussion then moves to the law and why there is a lack of clarity when it comes to ownership of course materials. The paper concludes by exploring what kind of policy is needed.

ERIC Journal Number: EJ623558
Title: **The End of Software Training?**
Author(s) van Merrienboer, Jeroen J. G.
Source: Journal of Computer Assisted Learning, v16 n4 p366-75 Dec 2000
Publication Date: 2000
ISSN: 0266-4909
Document Type: **Reports--Descriptive**

Discusses the contributions to this special issue within an instructional design framework; examines three major trends that indicate a shift in focus; and concludes that software training is at an end since it is no longer fundamentally different from regular professional skills training.

ERIC Document Number: ED446727
Title: **Copyright Concerns in the Age of Distance Education**. ERIC Digest.
Author(s) Walther, James H.
Pages: 4
Publication Date: 2000
Availability: Available on the ERIC Clearinghouse on Higher Education Web site at http://www.eriche.org/digests/2000.html
Washington, DC 20036-1183. Tel: 800-956-7739 (Toll Free).
Document Type: **Reports--Descriptive**

In the United States, copyright owners retain exclusive rights to their creative works. They alone have the legal right to reproduce, distribute, publicly perform, or publicly display their works or to construct derivative works. The recently enacted Digital Millennium Copyright Act has created several complex questions related to distance education for which higher education institutions must quickly search for procedural answers. This Digest poses and answers four questions that challenge basic knowledge of current copyright law and typify current concerns in institutions of higher education. Questions include whether or not movies may legally be shown as part of distance education course offerings, who holds intellectual property rights to a distance education course constructed by faculty, what intellectual property right individuals should pursue when creating distance education materials, and whether faculty may legally distribute to distance education students electronic copies of materials that would normally be placed on reserve for them in the school's library.

ERIC Document Number: ED444462
Title: **A University Design Team Approach: Developing Courses for On-Line Distance Education.**
Author(s) Youngman, Timothy; Gotcher, Lee; Vafa, Shahrzad; Dinsmore, Sharon; Goucher, Orval B.
Pages: 7
Publication Date: 2000
Document Type: **Reports--Descriptive; Speeches/meeting papers**

The University of Houston-Clear Lake has developed a systematic design process to use in facilitating the development of online distance education courses. The process incorporates three semesters, during which faculty members have the opportunity to consult with a design team that consists of instructional designers, World Wide Web

developers, graphic artists, media specialists, and instructional programmers. This paper presents an outline of the process, describes each step in detail, and provides a framework for formative evaluation. The first section of the paper considers the theoretical background of the process. The design team is described in the second section, including the members of the team and process management. The pre-production, production, and post-production stages of the process are detailed in the third section.

ERIC Journal Number: EJ621841
Title: **Decisions, Decisions: Choosing a Web Course Development Package.**
Author(s) Zvacek, Susan M.
Source: Quarterly Review of Distance Education, v1 n4 p337-44 Win 2000
Publication Date: 2000
ISSN: 1528-3518
Document Type: **Reports--Evaluative**

Discusses the software review process recently completed at the University of Kansas that resulted in the adoption of an integrated Web course development package. Highlights include stakeholders represented on the evaluation team; establishing review criteria; identifying and evaluating software; demonstrations; and recommendations.

ERIC Journal Number: EJ620115
Title: **Online Class Size: Balancing Quality and Cost.**
Source: Distance Education Report, v4 n17 p3 Sep 1, 2000
Publication Date: 2000
ISSN: 1094-320X
Document Type: **Reports--Descriptive**

Considers the size of online classes in higher education. Highlights include size as a factor in course design; interactivity issues; synchronous communication; balancing budget considerations and quality concerns; and enrollment parameters.

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IV. TEACHING AND LEARNING ON THE WEB♦

ERIC Journal Number: EJ625216
Title: **Is Distance Teaching More Work or Less Work?**
Author(s) DiBiase, David
Source: American Journal of Distance Education, v14 n3 p6-20 2000
Publication Date: 2000
ISSN: 0892-3647
Document Type: **Reports--Research**

Discusses a year-long study of time spent teaching and maintaining two comparable mature university courses, one offered online and one on campus. Results showed that the distance course required more frequent attention, but the total teaching and maintenance time per student was less than that for the traditional course.

ERIC Journal Number: EJ594527
Title: **Interpersonal Communication Strengthens Web-Based Instruction.**
Author(s) Donaldson, Joseph L.; Thomson, Joan S.
Source: Journal of Applied Communications, v83 n3 p22-32 1999
Publication Date: 1999
ISSN: 1051-0834
Document Type: **Reports--Research**

An investigation of communication preferences among college students (n=142) indicated significant differences between student attitudes toward student-to-student and instructor-to-student communication. Findings indicate the need for educators incorporating the World Wide Web into their curriculum to adopt a learner-centered approach to instruction.

ERIC Journal Number: EJ628260
Title: **Model Training.**
Author(s) Hitch, Leslie P.; Hirsch, David
Source: Journal of Academic Librarianship, v27 n1 p15-19 Jan 2001
Publication Date: 2001
ISSN: 0099-1333
Document Type: **Reports--Descriptive**

Outlines the process for developing an online training course for faculty who will teach entirely online. Highlights include an emphasis on pedagogy over technology; collaboration and discussion; a virtual library with relevant course resources that also serves as an introduction to general online library services; and keeping instructors current after training.

ERIC Document Number: ED448722
Title: **Comparative Analysis of Online vs. Face-to-Face Instruction.**
Author(s) Johnson, Scott D.; Aragon, Steven R.; Shaik, Najmuddin; Palma-Rivas, Nilda
Pages: 7
Publication Date: October 1999
Document Type: **Reports--Research; Speeches/meeting papers**

♦ See p.4 for how to get full-text copies of ERIC documents and journal articles cited in this bibliography.

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This empirical study compared a graduate online course with an equivalent course taught in a traditional face-to-face format. Comparisons included student ratings of instructor and course quality; assessment of course interaction, structure, and support; and learning outcomes such as course grades and student self-assessment of ability to perform various Instructional Systems Design (ISD) tasks. Results revealed that the students in the face-to-face course held slightly more positive perceptions about the instructor and overall course quality, although there was no difference between the two course formats in learning outcomes. The findings have direct implications for the development and delivery of online instruction. (Contains 16 references.)

ERIC Journal Number: EJ589890
Title: **Collaborative Learning on the Internet.**
Author(s) Kitchen, David; McDougall, Douglas
Source: Journal of Educational Technology Systems, v27 n3 p245-58 1998-1999
Publication Date: 1999
ISSN: 0047-2395
Document Type: **Reports--Research**

Examines graduate students' perceptions of the educational value of their collaborative learning when using the Internet for course delivery. Respondents indicated that, although they enjoyed the convenience and opportunity for collaboration, a number of unsatisfactory elements were apparent with the instructional strategy and the delivery medium. Recommendations are documented for improving future courses.

ERIC Document Number: ED453708
Title: **Web-Based Instruction: Theoretical Differences in Treatment of Subject Matter.**
Author(s) Ludwig, Brooke
Pages: 6
Publication Date: August 07, 2000
Document Type: **Reports--Descriptive; Speeches/meeting papers**

Views of learning and teaching have a direct relationship to the treatment of subject matter in online instruction. Two instructional theories, Elaboration Theory and Cognitive Flexibility Theory, are discussed in the context of online learning. Elaboration Theory (C. Reigeluth) is primarily concerned with the organization of course materials. The theory prescribes sequencing conceptual, procedural, and theoretical content from the most basic to the more complex. Cognitive Flexibility Theory is a case-based theory of instruction intended for use with complex and ill-structured knowledge domains. A central assertion is that advanced learning involves the development of flexible representations of knowledge that will help promote deep conceptual understanding and the ability to use knowledge adaptively. The theory was intended to support interactive technology, including hypertext and Web-based instruction. Research has demonstrated the usefulness of these two approaches. (Contains 16 references.)

ERIC Document Number: ED436154
Title: **Distance Education: Learner-Teacher Interaction and Time Spent by Teaching.**
Author(s) Mahesh, Veena; McIsaac, Marina Stock
Pages: 10
Publication Date: February 1999
Document Type: **Reports--Research; Speeches/meeting papers**

This qualitative study examined the structure and interaction in an online course from the meaning-perspectives of the actors involved. Participants were a teacher and teaching assistant who taught a graduate course in distance education at Arizona State University, delivered through a computer conferencing system. Data collected included interviews, observations, and messages posted by participants to a virtual classroom environment. Findings suggested that, while teachers conceded that they spent more time teaching an online course than a traditional face-to-face course, they believed the online teaching experience to be a worthwhile endeavor. In the context of an online course, teachers felt that they were more present and available for students than in a traditional course. Results of the study also suggest that students displayed better commitment to their work in an online course than a traditional course, because they have close interaction with the teacher. This close interaction can offset the lack of control the students may feel in a highly structured distance course. The personality, emotions, philosophy, and educational background of the teacher

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determine the structure and design of an online course, including the amount of interaction and time the teacher spends on online activities.

ERIC Journal Number: EJ601004
Title: **Using Learning Orientation To Investigate How Individuals Learn Successfully on the Web.**
Author(s) Martinez, Margaret
Source: Technical Communication: Journal of the Society for Technical Communication, v46 n4 p470-87 Nov 1999
Publication Date: 1999
ISSN: 0049-3155
Document Type: **Reports--Research**

Investigates learning differences (measuring and analyzing effects and interactions) in 3 Web environments that either matched or mismatched the individual's learning orientation (represented as an integrated set of psychological factors--cognitive, affective, cognitive, and social--that influence how individuals approach learning). Analyzes whether learning orientation, time, and environment account for different effects and interactions.

ERIC Journal Number: EJ635421
Title: **Electronic Pedagogical Practice: The Art and Science of Teaching and Learning On-Line.**
Author(s) Matuga, Julia M.
Source: Educational Technology & Society, v4 n3 p77-84 Jul 2001
Publication Date: 2001
ISSN: 1436-4522
Availability: Available on the Web at: http://ifets.ieee.org/periodical/vol_3_2001/v_3_2001.html
Document Type: **Reports--Descriptive**

Discusses the design and teaching of an online undergraduate course and considers similarities and differences of learning and teaching in traditional and electronic environments. Highlights include instructional design; course assignments; student course evaluations; and the relationship between course curriculum and goals, pedagogy, and student learning.

ERIC Document Number: ED432288
Title: **Incidental Learning in a Higher Education Asynchronous Online Distance Education Course.**
Author(s) McFerrin, Karen M.
Pages: 7
Publication Date: March 1999
Document Type: **Reports--Research; Speeches/meeting papers**

The purpose of this study was to examine and describe the incidental learning activity of students in an asynchronous online course in a higher education setting. This research was conducted with data collected from interviews, journals, observations, email messages, and online conferencing software postings of 22 members of three sections of a graduate-level asynchronous online distance education course at Northwestern State University of Louisiana in the spring of 1998. Two types of incidental learning outcomes were observed. The first developed from the students' use of the technology itself. The second centered on an improvement in certain areas of the students' personal development. An increase in time management ability, self-directive behavior, self-confidence, and self-discipline occurred. The results of the study illustrate the value of incidental learning in an asynchronous online course and the need for coursework development that fosters the growth of incidental learning.

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ERIC Journal Number: EJ623508
Title: **Needs, Concerns and Practices of Online Instructors.**
Author(s) McKenzie, Barbara K.; Mims, Nancy; Bennett, Elizabeth; Waugh, Michael
Source: Online Journal of Distance Learning Administration, v3 n3 Fall 2000
Publication Date: 2000
Document Type: **Reports--Research**

Explores online faculty backgrounds, concerns, and online teaching practices. Participants were all of the instructors at the State University of West Georgia who taught online courses in the fall 1999 semester. Findings provide administrators with information to consider as they wrestle with online delivery issues such as course size limitations and time required for faculty to prepare and deliver online courses.

ERIC Document Number: ED455825
Title: **Contextual Considerations for Teaching Online at the Postsecondary Level.**
Author(s) Sawyer, Salley; Moore, Joi
Pages: 8
Publication Date: October 2000
Document Type: **Reports--Research; Speeches/meeting papers**

Designing an online class guided by the principles of learner-centered instruction at the postsecondary level is a daunting challenge for new professors facing the demands of a tenure track position. This paper presents the findings of a pilot project on two junior faculty members' experiences with online course development and teaching in a university setting. The purpose of the study was to identify and describe those experiences in ways that would be useful to academic administrators, and in ways that would provide a robust basis for conducting a larger descriptive study. The professors' responses to the following research questions are provided: How do the professors describe the experience of planning and teaching an online course? How do the professors perceive the demands of teaching a class online compare with the demands of teaching a similar class face-to-face? How do the professors understand the context of online course development and teaching? Findings are discussed in terms of interaction, importance of students' expectations, and pressures in regard to tenure documentation. The study found that an online environment presents challenges unique to the technology, and the recommendation is made that university administrators must recognize such challenges in order to encourage pedagogically sound online instruction.

ERIC Journal Number: EJ616728
Title: **Differential Skills and Competencies Required of Faculty Teaching Distance Education Courses.**
Author(s) Schoenfeld-Tacher, Regina; Persichitte, Kay A.
Source: International Journal of Educational Technology, v2 n1 p1-16 Jul 2000
Publication Date: 2000
ISSN: 1327-7308
Document Type: **Reports--Descriptive**

Analyzes the differential skills and competencies required of faculty teaching distance education courses via the World Wide Web. The faculty perceptions of needed skills and competencies varied greatly and were found to be primarily influenced by their prior knowledge of instructional design strategies and distance education theories. Survey questions and faculty descriptions are appended. (Contains 31 references.)

ERIC Document Number: ED444477
Title: **More than Having a Connection: Qualitative Factors That Affect Learning in a Web-Based University Course.**
Author(s) Sujo de Montes, Laura E.; Gonzales, Carmen L.
Pages: 7
Publication Date: 2000
Document Type: **Reports--Research; Speeches/meeting papers**

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This paper reports the perceptions of inservice teachers participating in a World Wide Web-based university course. The pedagogical soundness of distance education courses that model constructivist learning theory and that are available to learners at times and places convenient to them are also examined. Qualitative methods were used to collect data, including an open-ended student questionnaire (the middle and end of the semester course analysis), electronic journals kept by the participants, and in-depth interviews with four participants. Content analysis and analysis of emerging themes were used to analyze the data. Themes from the questionnaire were grouped into four categories: class perceptions, technology, self, and professor. Themes that emerged from the journals were divided into three categories: class, problems, and feelings. The interviews revealed that students come to class with a set of ideas and assumptions that situate them more or less in the constructivist paradigm or in the traditional paradigm. (Contains 14 references.)

ERIC Document Number: ED448760
Title: **Course Design Factors Influencing the Success of Online Learning**.
Author(s) Swan, Karen; Shea, Peter; Fredericksen, Eric E.; Pickett, Alexandra M.; Pelz, William E.
Pages: 7
Publication Date: November 2000
Document Type: **Reports--Research; Speeches/meeting papers**

This paper looks at factors affecting the success of asynchronous online learning through an investigation of relationships between student perceptions and course design factors in the SUNY (State University of New York) Learning Network, one of the largest asynchronous learning networks in the country. It finds that three such factors--consistency in course design, interaction with course instructors, and active discussion--have been consistently shown to significantly influence the success of online courses. It is posited that the reason for these findings relates to the importance of building community in online courses. (Contains 17 references.)

ERIC Journal Number: EJ589092
Title: **Effects of Web-Based Instruction on Learning Behaviors of Undergraduate and Graduate Students**.
Author(s) Thiele, Joan E.; Allen, Carol; Stucky, Mary
Source: Nursing and Health Care Perspectives, v20 n4 p199-203 Jul-Aug 1999
Publication Date: 1999
ISSN: 1094-2831
Document Type: **Reports--Research**

A survey of 71 nursing students in a Web-based course found that the format increased collaborative learning and improved computer skills. Graduate students were more confident that the course helped them understand concepts and ideas. Access, time, and computer skills were the largest barriers to learning.

ERIC Document Number: ED447767
Title: **Principles of Effective Teaching in the Online Classroom. New Directions for Teaching and Learning**. The Jossey-Bass Higher and Adult Education Series.
Author(s): Weiss, Renee E., Ed.; Knowlton, Dave S., Ed.; Speck, Bruce W., Ed.
Source: New Directions for Teaching and Learning, n84 Win 2000 Pages: 94
Publication Date: 2000
ISBN: 0-7879-5615-5
ISSN: 0271-0633
Availability: Jossey-Bass Publishers, 350 Sansome Street, San Francisco, CA 94014-1342 ($58/year, $23 each). Tel: 888-378-2537 (Toll Free); Fax: 800-605-2665; Web site: http://www.josseybass.com.
Type: **Book; Collected works--Serials**

This volume highlights the challenges that electronic classrooms pose to faculty and students. The papers discuss both the pedagogy and the design of online courses. The 11 papers include: (1) "A Theoretical Framework for the Online Classroom: A Defense and Delineation of a Student-Centered Pedagogy" (Dave S. Knowlton); (2) "Designing Instruction for Learning in Electronic Classrooms" (Gary R. Morrison and Peter F. Guenther); (3) "Components of the Online Classroom" (Zane L. Berge) (4) "Making Decisions: The Use of Electronic Technology in Online Classrooms" (Michael Simonson); (5) "Students as Seekers in Online Courses" (Mark Canada); (6) "Accommodating Students with Special Needs in the Online Classroom" (Thomas J. Buggey); (7) "Humanizing the Online Classroom" (Renee E. Weiss); (8) "Promoting Deep and Durable Learning in the Online Classroom" (Douglas J. Hacker and Dale S. Niederhauser); (9) "Evaluating Students' Written Performance in the Online Classroom" (John F. Bauer and Rebecca S. Anderson); (10) "The Academy, Online Classes, and the Breach in Ethics" (Bruce W. Speck); and (11) "Epilogue: A Cautionary Note about Online Classrooms" (R. W. Carstens and Victor L. Worsfold). (Individual papers contain references.)

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V. ASSESSMENT AND EVALUATION OF WEB-BASED INSTRUCTION♦

ERIC Journal Number: EJ617711
Title: **How Classroom Environment and Student Engagement Affect Learning in Internet- based MBA Courses.**
Author(s) Arbaugh, J. B.
Source: Business Communication Quarterly, v63 n4 p9-26 Dec 2000
Publication Date: 2000
ISSN: 1080-5699
Document Type: **Reports--Research**

Examines the effects of technological, pedagogical, and student characteristics on student learning in Internet-based MBA courses. Suggests that teaching expertise may be the primary criterion for teaching success in the online classroom environment and that instructors may need to spend more time developing and cultivating instructional skills such as simultaneously working with several smaller groups of students, and fostering intimacy.

ERIC Journal Number: EJ647360
Title: **Assessing the Quality of Distance Education Programs: The Faculty's Perspective.**
Author(s): Bennett, John F.; Bennett, Linda B.
Publication Date: 2002
Source: Journal of Computing in Higher Education; v13 n2 p71-86 Spr 2002
ISSN: ISSN-1042-1726
Document Type: **Reports—Research/Technical**

Surveyed faculty to determine the extent to which benchmarks of high-quality distance education developed by the Institute of Higher Education are being incorporated in such courses. Found that most benchmarks in the categories of course development, teaching/learning process, and course structure are being implemented. Faculty support was an exception, which can affect faculty satisfaction and student interactivity.

ERIC Document Number: ED458869
Title: **Expert Review at a Distance: A Hybrid Approach.**
Author(s) Byers, Albert S.; Halpin, David
Pages: 18
Publication Date: June 2000
Document Type: **Reports--Research; Speeches/meeting papers**

This paper describes a distance collaborative evaluation method employed to analyze an asynchronous World Wide Web-based course. This course was offered through the Instructional Technology Department at Virginia Tech as part of a distance education master's program. An initial expert review of the course was commissioned by the department as part of an assignment for a graduate course in product evaluation. A first-year doctoral student from Virginia Tech followed specific guidelines to complete the review process. Several leading instructional design models that were utilized to conduct this initial review are described. After completion of this initial review, a second doctoral student from the University of Georgia reviewed both the Web-based course and the first reviewer's comments. The cumulative review of the first two students was then passed on to the course developer. The course developer added his own comments and incorporated student feedback into this collaborative distance-based review. The information was then re-circulated and a consensus reached that incorporated all the information into a collective list of evaluative recommendations. All correspondence between the three reviewers was accomplished using a variety of distance collaborative processes, including telephone, e-mail, and videoconferencing. Research concerning the transactional distance that can occur in a distance environment was substantiated. The evaluated course assisted Virginia teachers in creating their own educational Web sites. (Contains 68 references.)

♦ See p.4 for how to get full-text copies of ERIC documents and journal articles cited in this bibliography.

ERIC Journal Number: EJ633272
Title: **Learning Best-Practice in Design and Problem-Solving Skill Development: MTutor--A Web-based Distance Learning Tool.**
Author(s) Culverhouse, Phil; Burton, Cheryl
Source: Quarterly Review of Distance Education, v2 n3 p221-31 Fall 2001
Publication Date: 2001
ISSN: 1528-3518
Document Type: **Reports--Evaluative**

Reviews the use of MTutor, a virtual learning environment, in assisting final year engineering project students to adopt industry best practices for design in their projects and to improve their problem-solving skills. MTutor is designed to support problem-solving skill development in learners through Web-based virtual tutorials, which are constructed using word processing and automation tools.

ERIC Journal Number: EJ628348
Title: **'A' Is for Assessment: Identifying Online Assessment Practices and Perceptions.**
Author(s) Dereshiwsky, Mary I.
Source: Ed Education at a Distance, v15 n10 Jan 2001
Publication Date: 2001
Document Type: **Reports--Research**

Discussion of student assessment in online learning focuses on a study conducted at the Center for Excellence in Education at Northern Arizona University that examined assessment of student's performance in Web-based and Web-enhanced coursework. Compares assessment in online courses to assessment in traditional courses based on results of a faculty survey.

ERIC Document Number: ED448721
Title: **A Study of Students' Perceived Learning in a Web-Based Online Environment.**
Author(s) Jiang, Mingming; Ting, Evelyn
Pages: 7
Publication Date: October 1999
Document Type: **Reports--Research; Speeches/meeting papers**

The purpose of this study was to find what factors were associated with students' perceptions of learning in online courses. Survey data were collected from students enrolled in 78 courses offered through the SUNY (State University of New York) Learning Network in the fall of 1997. Correlation and multiple regression analyses were employed. The dependent variable was students' perceived learning that was correlated with the following 11 independent variables: instructor-student interaction; instructor-student communication; instructor evaluation; instructor responses; student-student interaction; student-student communication; online discussion; written assignments; learning style; prior computer competency; and time spent on a course. Results indicate that the amount of student-instructor interaction and the online discussion activity played an important role in predicting students' perceived learning. The implication of this finding is that it is not only important to create an interactive environment for learning, but it is also important to design discussion activities that can trigger rich and meaningful online discourse. (Contains 16 references.)

ERIC Document Number: Forthcoming
Title: **Quality in Distance Education: Focus on Online Learning**
Author: Meyer, Katrina A.
Publication Date: Forthcoming (Spring, 2003)
Available from: Jossey-Bass Publishers, 350 Sansome Street, San Francisco, CA 94014-1342. Tel: 888-378-2537 (Toll Free); Fax: 800-605-2665; Web site: http://www.josseybass.com.
Document Type: **Reports--Evaluative**

This report reviews the research on online learning, whether used in distance education or in on-campus courses. The report gives an overview of the growth in online learning and discusses the "no significant differences" research and the

criticism leveled at many research studies of distance education. Research that focuses on constructivism and multiple intelligences is reviewed, as well as research focusing on aspects of the technology, faculty, institutions, and learners. A number of guidelines designed to evaluate the quality of online learning are also explores. The report concludes with a discussion of new quality measures and approaches intended to identify and cultivate quality online learning.

ERIC Document Number: Forthcoming
Title: **Quality in Distance Education: Focus on Online Learning. Executive Summary.**
Author: Meyer, Katrina A.
Publication Date: November, 2002
Pages: 2
Available from: The ERIC Clearinghouse on Higher Education web site at http://www.eriche.org
Document Type: **Reports—Evaluative**

This is the executive summary of the ASHE-ERIC Report of the same title. It offers answers to questions posed to the author about her research into the quality of distance education and online learning.

ERIC Document Number: ED444407
Title: **Quality on the Line: Benchmarks for Success in Internet-Based Distance Education.**
Author(s) Phipps, Ronald; Merisotis, Jamie
Author Affiliation: Institute for Higher Education Policy, Washington, DC.
Pages: 37
Publication Date: April 2000
Available from:
Institute for Higher Education Policy, Suite 400, 1320 19th St. NW, Washington, DC 20036; Tel: 202-861-8223; Fax: 202-861-9307; E-mail: institute@ihep.com; Web site: http://www.ihep.com.
Document Type: **Reports--Evaluative**

This study identifies 24 benchmarks considered essential to ensuring excellence in Internet-based distance learning, as used by the following six institutions which are leaders in distance education: Brevard Community College (Florida); Regents College (New York); University of Illinois at Urbana-Champaign; University of Maryland University College; Utah State University; and Weber State University (Utah). The benchmarks are divided into seven categories: (1) institutional support; (2) course development; (3) teaching/learning; (4) course structure; (5) student support; (6) faculty support; and (7) evaluation and assessment. The study seeks to ascertain the degree to which the benchmarks are actually incorporated in the policies and practices of the institutions, and how important the benchmarks are to faculty, administrators, and students. Quantitative information for the study was derived from a Likert-scale survey, and qualitative information was derived from in-depth interviews. The report concludes that, for the most part, the benchmarks are considered important and that the institutions strive to incorporate them into their policies, practices, and procedures. Appendixes contain institutional profiles and detailed survey results. (Contains 26 references.)

ERIC Document Number: ED436185
Title: **Person-Environment Interaction in the Virtual Classroom: An Initial Examination.**
Author(s) Powers, Susan M.; Davis, Michaeleen; Torrence, Eileen
Pages: 9
Publication Date: February 1999
Document Type: **Reports--Research; Speeches/meeting papers**

This pilot study explores the perceptions of distance education students of their classroom environment using the College/University Classroom Environment Inventory (CUCEI), a traditional classroom assessment tool. The CUCEI has seven scales that cover the areas of personalization, involvement, student cohesiveness, satisfaction, task orientation, and innovation. The scales determine the fit between a student's perception of the actual classroom environment and their preferred environment. Participants were 13 graduate students enrolled in three different courses on instructional technology offered at a distance over the World Wide Web. In addition to the data collected with the CUCEI, qualitative information was also collected in order to assist with interpretation of CUCEI results, including papers and presentations, discussion questions, online lectures, peer discussion and feedback, and student reflective journals

and time logs. Results are examined related to the viability of the use of the CUCEI in this context, followed by a discussion of student assessment of their virtual classroom environment. It is concluded that the CUCEI is promising in its ability to assess the virtual classroom environment and provide instructors with valuable information about student perceptions of the environment.

ERIC Journal Number: EJ620166
Title: **Student Perceptions of the Effectiveness of Web-based Courses.**
Author(s) Schramm, Robert M.; Wagner, Richard J.; Werner, Jon M.
Source: Distance Education Report, v4 n18 p1,3 Sep 15, 2000
Publication Date: 2000
ISSN: 1094-320X
Document Type: **Reports--Descriptive; Reports--Research**

Describes results of a survey of 206 students in the University of Wisconsin Whitewater's online MBA program that investigated sufficiency of training, problems in accessing the course, client servers versus Internet browsers, employment status, and part-time versus full-time student status. Concludes that further research is needed concerning online course effectiveness.

ERIC Journal Number: EJ643432
Title: **A New Methodology for Evaluation: The Pedagogical Rating of Online Courses.**
Author: Sonwalkar, Nishikant
Publication Date: 2002
Journal Citation: Syllabus; v15 n6 p18-21 Jan 2002
ISSN: ISSN-1089-5914
Document Type: **Reports—Descriptive**

Presents a method for evaluating the quality and effectiveness of online courses and learning modules in higher education and corporate training. Highlights include the growing need for evaluation; models of evaluation; the Pedagogy Effectiveness Index; and a summative rating for online courses that includes content factors, usability, and technological factors.

ERIC Journal Number: EJ580708
Title: **Student Ratings of Instruction in Distance Learning and On-Campus Classes.**
Author(s) Spooner, Fred; Jordan, Luann; Algozzine, Bob; Spooner, Melba
Source: Journal of Educational Research, v92 n3 p132-40 Jan-Feb 1999
Publication Date: 1999
ISSN: 0022-0671
Document Type: **Reports--Research**

This study compared college students' ratings of special education courses, offered on and off-campus, that used different instructional methods (including electronic media). End-of-course student evaluations indicated that global ratings for instructor, teaching skill, and communication were similar across courses and across locations (on-campus and off-campus).

ERIC Journal Number: EJ625246
Title: **Building Knowledge Building Communities: Consistency, Contact and Communication in the Virtual Classroom.**
Author(s) Swan, Karen; Shea, Peter; Fredericksen, Eric; Pickett, Alexandra; Pelz, William; Maher, Greg
Source: Journal of Educational Computing Research, v23 n4 p359-83 2000
Publication Date: 2000
ISSN: 0735-6331
Document Type: **Reports--Research**

Examines factors affecting the success of asynchronous online learning both through a review of the research and through an empirical investigation of student perceptions and course design factors in one of the largest asynchronous learning networks in the United States. Reveals that three such factors-consistency in course design, contact with course instructors, and active discussion-have been consistently shown to significantly influence success of online courses.

ERIC Document Number: ED448760
Title: **Course Design Factors Influencing the Success of Online Learning.**
Author(s) Swan, Karen; Shea, Peter; Fredericksen, Eric E.; Pickett, Alexandra M.; Pelz, William E.
Pages: 7
Publication Date: November 2000
Document Type: **Reports--Research; Speeches/meeting papers**

This paper looks at factors affecting the success of asynchronous online learning through an investigation of relationships between student perceptions and course design factors in the SUNY (State University of New York) Learning Network, one of the largest asynchronous learning networks in the country. It finds that three such factors--consistency in course design, interaction with course instructors, and active discussion--have been consistently shown to significantly influence the success of online courses. It is posited that the reason for these findings relates to the importance of building community in online courses. (Contains 17 references.)

ERIC Journal Number: EJ610164
Title: **Principles of Pedagogy and Evaluation for Web-based Learning.**
Author(s) Vrasidas, Charalambos; McIsaac, Marina S.
Source: Educational Media International, v37 n2 p105-11 Jun 2000
Publication Date: 2000
Document Type: **Reports--Descriptive**

Discusses online course development based on the design of courses at Arizona State University that were delivered via the World Wide Web and used computer conferencing software. Discusses the audience, learner characteristics, content, goals, instructional strategies, feedback, interaction, and evaluation. (Contains 13 references.)

ERIC Document Number: ED430261
Title: **The Effectiveness of Web-Based Instruction: A Case Study.**
Author(s) White, Sylvia E.
Pages: 24
Publication Date: April 1999
Document Type: **Reports--Research; Speeches/meeting papers; Test/questionnaires**

A case study compared web-based and classroom instruction. Subjects, 40 students enrolled in a Communication Technology and Change class, were divided by volunteers into an Internet section (16 students) and a regular classroom section (24 students.) Results indicated that in all cases the classroom section performed slightly better significance. Findings suggest that web-based instruction is as effective as classroom instruction as far as grades are concerned, but if classroom discussion is important to learning then students did not receive the same quality of instruction. Suggestions for future web-based courses are included. (Contains 14 references and 3 tables of data; two appendixes presenting the Internet and computer use questionnaire and the distance learning response questionnaire are attached.)

VI. CHALLENGES AND IMPACT OF WEB-BASED INSTRUCTION*

ERIC Document Number: ED455761
Title: **Challenges Faced by Institutions of Higher Education in Migrating to Distance Learning.**
Author(s) Broskoske, Stephen L.; Harvey, Francis A.
Pages: 7
Publication Date: October 2000
Document Type: **Reports--Research; Speeches/meeting papers**

This paper presents the results of a research study conducted in fall 1999 to examine the challenges facing higher educational institutions in migrating to distance learning. The study consisted of five case studies conducted at higher educational institutions in Pennsylvania. At each institution the researchers interviewed the president and other senior administrators and conducted a focus group with administrators and key faculty involved in distance education. Participants in the study reviewed and analyzed a comprehensive model developed by the researchers for applying principles of organizational agility to distance learning. Researchers investigated how institutions of higher education could strategically coordinate human resources, organizational dynamics, and distance learning technologies in a systematic way in order to gain and maintain a competitive edge in the educational marketplace, and in order to be more responsive to students. The study found that issues related to faculty and other personnel, marketing, competition, budget, and planning were more significant for the success of distance education than technological issues. Implications for planning and implementing successful distance programs are presented.

ERIC Journal Number: EJ629908
Title: **An Early Tool To Simulate the Impact of Web-based Learning on the University.**
Author(s) Carr-Chellman, Alison A.; Choi, Ikseon; Hernandez-Serrano, Julian
Source: Quarterly Review of Distance Education, v2 n2 p157-67 Sum 2001
Publication Date: 2001
ISSN: 1528-3518
Document Type: **Reports--Research**

Shares results of the authors' attempts to build a simulation model of the potential impacts of Web-based learning on various university sub-systems such as libraries, facilities, and budgets. The authors worked to identify the major components, values, and subsystems necessary for a potentially robust simulation based on change, adoption, and diffusion theories, as well as information about the systems of higher education and online learning.

ERIC Journal Number: EJ623546
Title: **Faculty Participation in the Pennsylvania State University World Campus: Identifying Barriers to Success.**
Author(s) Ellis, Evelynn M.
Source: Open Learning, v15 n3 p233-42 Nov 2000
Publication Date: 2000
ISSN: 0268-0513
Document Type: **Reports--Descriptive**

Investigates Pennsylvania State University's electronic distance education program to determine difficulties that faculty members and administrators face when faculty choose to teach electronically within a traditional institution. Discusses time needed by faculty for course development; promotion and tenure issues; costs; and assessing the quality of teaching and learning.

♦ See p.4 for how to get full-text copies of ERIC documents and journal articles cited in this bibliography.

ERIC Document Number: ED464102
Title: **Conflicting Ideologies and the Shift to E-Learning.**
Author: Folkestad, Leah S.; Haag, Susan
Publication Date: 2002
Pages: 17
Document Type: **Reports—Research/Technical; Speeches, Conference Papers**

Previous research and policy in online education has underestimated the amount of effort and commitment required by those asked to develop and deliver courses online. Although implementation of e-learning technologies is on the rise, the faculty adoption rate is slow. Prior studies attribute the lack of adoption to faculty resistance to online teaching technologies (C. Gunawardena, 1990; D. McNeil, 1990; K. Stinehart, 1988). However, the way faculty perceive and respond to other issues associated with the online context are constructs worth examining. This study examines the beliefs, concerns, and practices of faculty from three state universities to determine implications for long-range e-learning reform. Data sources included 24 semi-structured interviews with faculty and administrators, archival document review, observational data, and participant questionnaires. Findings indicate that the combination of university policy disincentives confounds university efforts to encourage and train faculty to teach online. Such disincentives are the real reason that faculty fail to join the quest for online education. (Contains 24 references.)

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VII. SELECTED INTERNET RESOURCES

AMERICAN DISTANCE EDUCATION CONSORTIUM (ADEC)
The *ADEC Guiding Principles for Distance Learning* (http://www.adec.edu/admin/papers/distance-learning_principles.html) and the *ADEC Guiding Principles for Distance Teaching and Learning* (http://www.adec.edu/admin/papers/distance-teaching_principles.html) can be found here.

COUNCIL OF REGIONAL ACCREDITING COMMISSIONS
See the Guidelines for the Evaluation of Electronically Offered Degree and Certificate Programs (http://www.wiche.edu/telecom/Guidelines.htm)

THE DISTANCE EDUCATION CLEARINGHOUSE
http://www.uwex.edu/disted/home.html
The site offers information about online teaching and learning, research, delivery methods, and more.

EDUCAUSE
http://www.educause.edu/
EDUCAUSE advances higher education by promoting the intelligent use of information technology. Use the site's search engine to locate resources on Web-based instruction.

INSTITUTE FOR HIGHER EDUCATION POLICY
See *What's the Difference? A Review of Contemporary Research on the Effectiveness of Distance Learning in Higher Education* at http://www.ihep.com/Publications.php?parm=Pubs/Abstract?9

NATIONAL EDUCATION ASSOCIATION: HIGHER EDUCATION ONLINE TEACHING AND LEARNING RESOURCES
http://www.nea.org/he/abouthe/techip.html
Resources listed here include links to MIT OpenCourseWare and a Build Your Own Course Web Site.

ONLINE HIGHER EDUCATION NOTEBOOK
http://www.uis.edu/~schroede/sources.htm
This notebook is an evolving meta-site of Web resources on online higher education

THE OXFORD CENTRE FOR STAFF AND LEARNING DEVELOPMENT
http://www.brookes.ac.uk/services/ocsd/4_resource/tlonlin_index.html
These pages link to annotated sets of resources about online teaching and learning in higher education.

THE TECHNOLOGY SOURCE
http://ts.mivu.org/
The Technology Source is a peer-reviewed bimonthly periodical published by the Michigan Virtual University. The journal provides thoughtful, illuminating articles that will assist educators as they face the challenge of integrating information technology tools into teaching and into managing educational organizations.

THE WEB OF ASYNCHRONOUS LEARNING NETWORKS
http://www.aln.org/index.htm
Read the current issue of the Journal of Asynchronous Learning Networks, view papers from the 7th Sloan-C International Conference on Online Learning, and link to the Web Center on Learning Effectiveness Research.

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